

REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed April 20, 2006 (“Office Action”). At the time of the Office Action, Claims 1-52 were pending in the Application. The Examiner has rejected Claims 1-52. Applicants respectfully request reconsideration and allowance of all pending Claims.

Section 103 Rejections

The Examiner rejects Claims 1-15, 21-40, 46, 47 and 49-52 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,192,404 B1 issued to Hurst, et al. (“*Hurst*”) in view of U.S. Patent No. 6,804,240 B1 issued to Shirakawa, et al. (“*Shirakawa*”). Applicants respectfully request reconsideration and allowance of Claims 1-15, 21-40, 46, 47 and 49-52.

The *Hurst-Shirakawa* combination fails to support the rejection for at least two reasons. First, the cited references fail to teach, suggest, or disclose “calculating a delay period based at least in part on a network address” as recited, in part, in Claim 1. Second, the Office Action fails to properly identify any motivation for combining the teachings of *Hurst* with the teachings of *Shirakawa*.

First, the cited references fail to teach, suggest, or disclose “calculating a delay period based at least in part on a network address” as recited, in part, in Claim 1. In the Office Action, the Examiner relies on *Shirakawa* for this aspect of Claim 1. (Office Action; p. 3, ¶¶ 5-6). *Shirakawa*, however, has nothing to do with “calculating a delay period based at least in part on a network address.” *Shirakawa* discloses a packet processing unit that classifies different types of data packets according to information in the headers of the data packets. (*Shirakawa*; col. 3, ll. 54-67; col. 4, ll. 1-49). The processing unit in *Shirakawa* may perform searches of databases based on information extracted from data packet headers. (*Shirakawa*; col. 8, ll. 37-48; col. 9, ll. 36-47). In particular, *Shirakawa* discloses that searches based on multiple parameters (or “keys”) require more calculations and are slower than searches based on fewer parameters. (*Shirakawa*; col. 9, ll. 36-47). To reduce search time, *Shirakawa* recommends “dividing the keys of the database into a direct product of smaller databases...so that it is possible to realize a faster processing in the case where the search algorithm requires an amount of calculations proportional to the total number of keys.” (*Shirakawa*; col. 9, ll. 36-48). Thus, *Shirakawa* teaches dividing the keys of the database to reduce the number of search calculations. In rejecting Claim 1, the Examiner cites a portion of *Shirakawa* that

discusses database searches. Specifically, the cited portion of *Shirakawa* states:

In the packet processing unit 102, a search through a database (not shown) using a specific field of the header of the packet as a key will be carried out frequently. Suppose that there are plural algorithms for the database search, and that an amount of calculations or delay of the search is different depending on a type of the key and a distribution of that key on the database. This is a case that is often encountered in the database search for determining an output terminal (output interface) using a network address as a key.

(*Shirakawa*; col. 8, ll. 39-47). Thus, *Shirakawa* teaches that the “amount of calculations” required for a search depends on “the key” and the “distribution of that key” in the database. Notably, the foregoing portion of *Shirakawa* has nothing to do with “calculating a delay period based at least in part on a network address” as recited in Claim 1. The “calculations” mentioned in *Shirakawa* are merely the calculations used to locate data in a database (i.e., search algorithms) -- they are not calculations of “a delay period” as recited in Claim 1. In addition, *Shirakawa* uses the term “delay” merely to explain that a search based on multiple keys is more time-consuming, causing a “delay.” The “delay” in *Shirakawa* is not calculated by the processing unit -- it is merely the undesired effect of an inefficient search. Moreover, *Shirakawa* mentions a “network address” as merely one example of a key (or parameter) for searching a database. In *Shirakawa*, a “network address” is not used to calculate a “delay period.” Thus, the cited portion of *Shirakawa* has nothing to do with “calculating a delay period based at least in part on a network address” as recited in Claim 1. In rejecting Claim 1, the Examiner seemingly performed a keyword search of the terms “delay”, “calculation”, and “network address” in the text of *Shirakawa* and then used these terms out of context to reject a portion of Claim 1. As shown above, however, *Shirakawa* clearly fails to teach, suggest, or disclose “calculating a delay period based at least in part on a network address” as recited in Claim 1. Because *Shirakawa* fails to teach, suggest, or disclose this aspect of Claim 1, *Shirakawa* fails to support the rejection.

Second, the Office Action fails to properly identify any motivation for combining the teachings of *Hurst* with the teachings of *Shirakawa*. To combine prior art under 35 U.S.C. § 103, “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.” (Manual of Patent Examining Procedure (MPEP) §2143). In the Office Action, the Examiner states:

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Hurst* in view of *Shirakawa* to calculate a delay period based on at least in part on a network address. One would be motivated to do so because it is an efficient way to prevent network traffic.

(Office Action; p. 3). The foregoing statement is inaccurate because, as shown above, *Shirakawa* does not calculate a delay period based on a network address. In addition, the use of a delay period to prevent network traffic is not suggested by either *Hurst* or *Shirakawa*. Indeed, the motivation for using a delay period to prevent network traffic is suggested by Applicants' Specification, not by any of the cited references. By relying on Applicants' Specification, the Examiner is using hindsight reconstruction to find a motivation for combining the cited references. Applicants remind the Examiner that it is improper for an Examiner to use hindsight having read the Applicants' disclosure to arrive at an obviousness rejection. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q. 2d 1596, 1600 (Fed. Cir. 1988). Because the cited references fail to provide any motivation for the proposed combination, the proposed combination is improper. For at least the foregoing reasons, Applicants respectfully request reconsideration and allowance of Claim 1.

In rejecting Claims 6, 21, 26, 31, 46, 47, and 49-52, the Examiner employs the same rationale used with respect to Claim 1. Accordingly, for reasons analogous to those stated above with respect to Claim 1, Applicants respectfully requests reconsideration and allowance of Claims 6, 21, 26, 31, 46, 47, and 49-52.

Claims 2-5, 7-15, 22-25, 27-30, and 32-40 depend from independent claims shown above to be allowable. In addition, these claims recite further elements not taught, suggested, or disclosed by the cited references. For example, the cited references fail to teach, suggest, or disclose that "the query sent from the caller node comprises a delay constant, each of the plurality of nodes on the network calculating a delay period by multiplying the delay constant by its own network address" as recited in Claim 4. In rejecting Claim 4, the Examiner cites a portion of *Hurst*. *Hurst* discloses a network wherein a base node transmits multiple queries to receiving nodes to determine time-to-live (TTL) distances between the base node and the receiving nodes. (*Hurst*; abstract; col. 3, ll. 15-41). The cited portion of *Hurst* states that the base node waits a predetermined amount of time for response messages from the receiving nodes. (*Hurst*; col. 8, ll. 4-19). Specifically, the cited portion of *Hurst* states:

In an alternative embodiment, TTL determining logic 210 (FIG. 2) waits for a predetermined period of time for TTL query response messages from computers 102B-Y (FIG. 1). For those of computers 102B-Y from which TTL determining logic 210 (FIG. 2) does not receive a TTL query response message, TTL determining logic 210 stores a TTL distance record, which indicates that the TTL distance to the computers from computer 102A is undetermined, in TTL distance database 212. In this alternative embodiment, the predetermined period of time during which TTL determining logic 210 waits for TTL query response messages from the time at which TTL determining logic 210 sends the TTL query messages in step 410 (FIG. 4) is twice the predetermined period of time during which computers 102B-Y receive the TTL query messages, e.g., twenty (20) seconds which is twice ten (10) seconds.

(*Hurst*; col. 8, ll. 4-19). Thus, the base node in *Hurst* waits a “predetermined period of time” (e.g., twenty seconds) for a response from a receiving node. If the base node does not receive a response, the base node stores a “distance record” in the TTL database. Clearly, the cited portion of *Hurst* does not teach, suggest, or disclose the elements of Claim 4. Nothing in the cited portion of *Hurst* teaches, suggests, or discloses that “the query sent from the caller node comprises a delay constant” as recited in Claim 4. Furthermore, merely waiting a “predetermined period of time” for a response does not teach, suggest, or disclose “calculating a delay period by multiplying the delay constant by its own network address” as recited in Claim 4. In addition, *Hurst* suggests that only the base node waits the “predetermined period of time.” In contrast, Claim 4 recites that “*each of the plurality of nodes on the network*” calculates “a delay period by multiplying the delay constant by its own network address.” (Emphasis added). Because the cited references fail to teach, suggest, or disclose these aspects of Claim 4, the cited references fail to support the rejection. For at least the foregoing reasons, Applicants respectfully request reconsideration and allowance of Claims 2-5, 7-15, 22-25, 27-30, and 32-40.

The Examiner rejects Claims 16-20, 41-45 and 48 under 35 U.S.C. 103(a) as being unpatentable over *Hurst* in view of U.S. Patent No. 5,471,461 issued to Engdahl, et al. (“*Engdahl*”), and further in view of *Shirakawa*. Applicants respectfully request reconsideration and allowance of Claims 16-20, 41-45 and 48.

The cited references fail to establish a case of *prima facie* obviousness. In their Response to the prior Office Action, Applicants demonstrated in detail that modifying *Hurst* in view of *Engdahl* would render *Hurst* unsatisfactory for its intended purpose of determining TTL distances of receiving nodes in a short, defined amount of time -- namely, “in the

amount of time required for a message to travel to the furthest node of the computer network and for a return message to be received by the base node from the furthest node of the computer network.” (*Hurst*; col. 3, ll. 36-41). In the present Office Action, the Examiner does not refute this point. Instead, the Examiner merely states:

[T]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

(Office Action; p. 13). Here, the Examiner misses the point. The Examiner’s comments demonstrate only a partial understanding of the requirements of 35 USC § 103. Although section 103 does not require the references to be “bodily incorporated,” section 103 does **not** allow a combination if the proposed modification would “render the prior invention being modified unsatisfactory for its intended purpose.” MPEP § 2143.01. This is the point of Applicants’ argument, which the Office Action ignores. Because the proposed modification of *Hurst* in view of *Engdahl* would render *Hurst* unsatisfactory for its intended purpose, the proposed combination must be withdrawn.

In rejecting Claims 16, 41, and 48, the Examiner employs rationale analogous to that used with respect to Claim 1. Accordingly, for at least the reasons stated above with respect to Claim 1, Applicants respectfully request reconsideration and allowance of Claims 16, 41, and 48.

Claims 17-20 and 42-45 depend from independent claims shown above to be allowable. In addition, these claims recite further elements not taught, suggested, or disclosed by the cited references. For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 17-20 and 42-45.

CONCLUSION

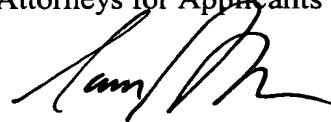
Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Samir A. Bhavsar, Attorney for Applicants, at the Examiner's convenience at (214) 953-6581.

Applicants believe no fee is due. However, should there be a fee discrepancy, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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